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Modular RICH Update

Xiaochun He, Cheuk-Ping Wong and Sawaiz Syed

General Update

- TSW document (Technical Scope of Work) is submitted by Mickey Chiu. It can be updated if needed.
- Assembled the first mRICH holder box and the components including the mirror holder, the readout plane and a smaller Fresnel lens.
- Started on designing a test stand using extruded aluminum.
- Plan to test the aerogel transmission and mirror reflectivity this week.
- Will start soon on building the second holder box (slightly in larger size in order to fit the Jlab aerogel block).
- Beam test schedule.

The First Holder Box



For one H12700A PMT

The Components



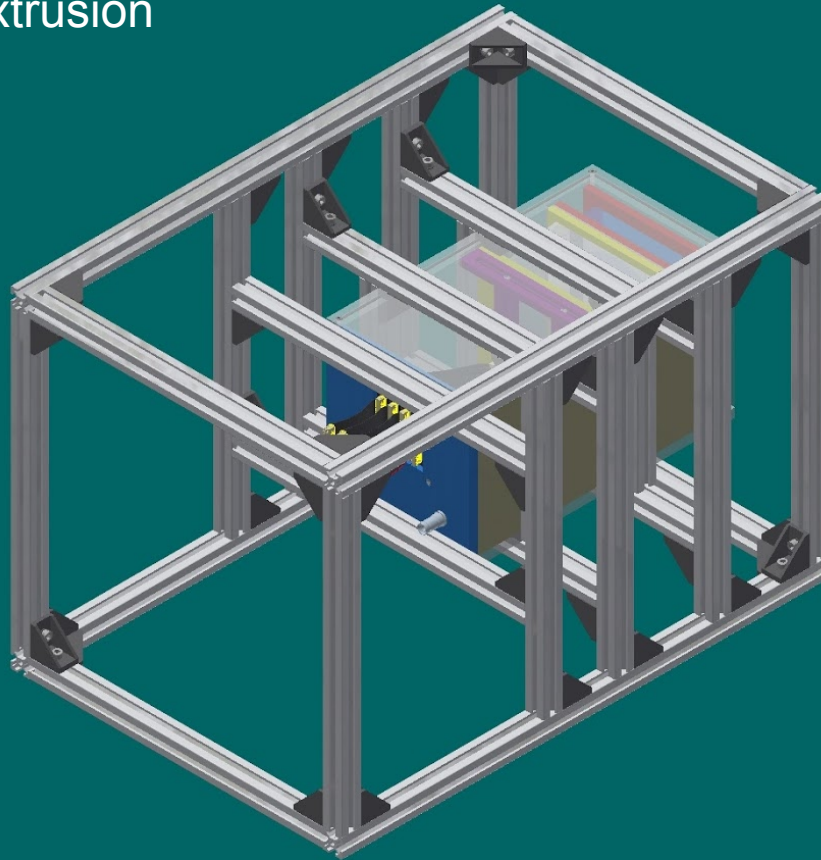
Aerogel block



Test Stand Design (1)

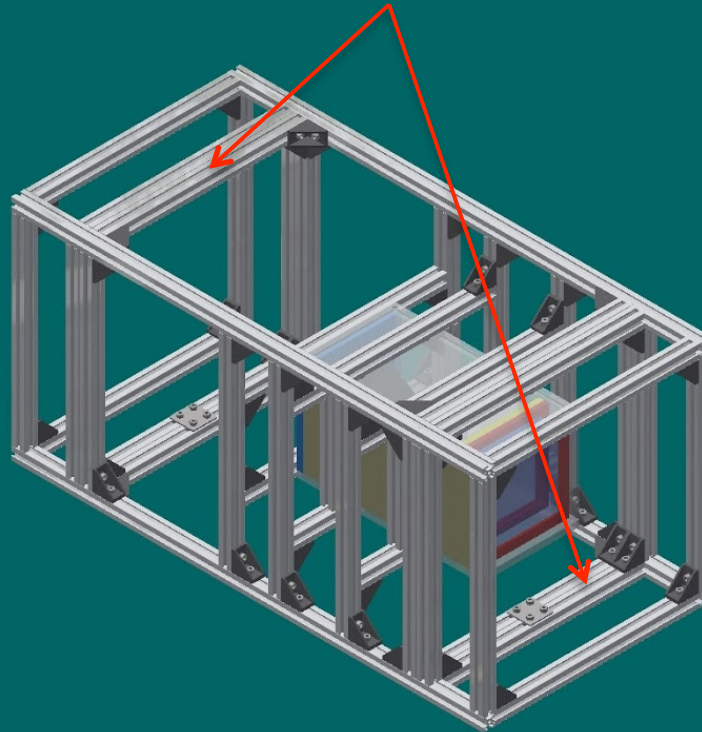
Using aluminum extrusion

Easy assemble
Adjustable
Additions

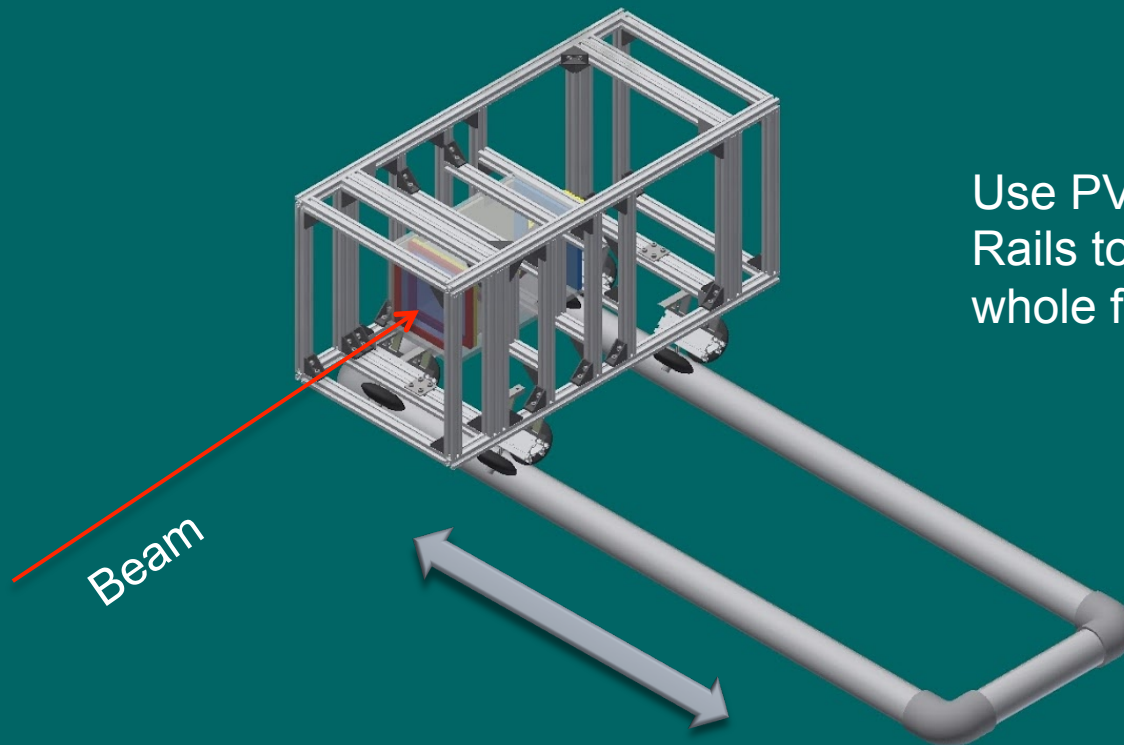


Test Stand Design (2)

Add frames for installing trigger hodoscopes



Test Stand Design (3)



Use PVC pipes for
Rails to move the
whole frame.



The Second Holder Box

Larger in size in order to fit Jlab Aerogel block

Open the slit on top cover
In order to insert a light mask

Readout plane should hold
4 PMTs if available.

Backplane will be modified



Test beam schedule

Here is the sPHENIX Calorimeter Test Schedule

- March 28 to April 4: Receive the detector at FNAL, Set the detectors up outside the beam line enclosure and test electronics with the LED pulser system and cosmic rays.
- April 5-7: Move detectors into the beam line enclosure and obtain the ORC for operations
- April 8-11: Commission detectors in the beam, time in triggers, study the beam characteristics with the FTBF MPWC, Cerenkov detector and Pb-Glass detector.
- April 12-15: Study the EMCal performance with the detector located on the MT6.2-B motion table. Cosmic ray calibration of the HCal and parasitic studies of the HCal.
- April 16-18: Move EMCal out of beamline and study the HCal performance
- April 19-May 2: Place EMCal in front of HCal on support table. Study performance of the combined EMCal/HCal system.
- May 3: Rig the EMCal/HCal out of the MT6.2 area in preparation for modifications needed for the high rapidity tests to be carried out on November 2016.

Marco's group prefers a time period before April 25th. I think that we should aim for April 15th to 25th. If you have not been to Fermilab, it is the time to apply for an ID and go through safety training requirements.